

SEQUENCE LISTING

<110> CURTISS III, Roy

<120> FUNCTIONAL BALANCED-LETHAL HOST-VECTOR SYSTEMS

<130> 3116-1192

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<170> PatentIn Ver. 2.0

<210> 1

<211> 1735

<212> DNA

<213> Salmonella typhimurium

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<210> 2

<211> 391

<212> PRT

<213> Salmonella typhimurium

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<212> DNA
<213> *Salmonella typhimurium* and *Pseudomonas putida*

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<213> *Salmonella typhimurium* and *Pseudomonas putida*

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      20          .          25          .          30

Arg Gly Met Val Gly Ser Val Leu Met Gln Arg Met Val Glu Glu Arg
      35          .          40          .          45

Asp Phe Asp Ala Ile Arg Pro Val Phe Phe Ser Thr Ser Gln Phe Gly
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Gln Ala Ala Pro Thr Phe Gly Asp Thr Ser Thr Gly Thr Leu Gln Asp
      65          .          70          .          75          .          80

Ala Phe Asp Leu Asp Ala Leu Lys Ala Leu Asp Met Asn Lys Gly Val
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 Asp Gln Gly Arg Val Tyr Leu Lys Ala Trp Thr Glu Val Asp Lys Phe
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 Ser Leu Val Leu Arg Glu Ala Asp Glu Pro Gly Met Asp Phe Met Gly
 145 150 155 160
 Phe Lys Val Val Asp Glu Asp Ala Leu Arg Gln Leu Glu Arg Asp Leu
 165 170 175
 Met Ala Tyr Gly Cys Ala Val Glu Gln Leu Pro Ala Gly Glu Leu Asn
 180 185 190
 Ser Cys Gly Arg Arg Val Arg Ser Arg Pro Ser Gly His His Phe Glu
 195 200 205
 Leu Tyr Ala Asp Lys Glu Tyr Thr Gly Lys Trp Gly Leu Asn Asp Val
 210 215 220
 Asn Pro Glu Ala Trp Pro Arg Asp Leu Lys Gly Met Ala Ala Val Arg
 225 230 235 240
 Phe Asp His Ala Leu Met Tyr Gly Asp Glu Leu Pro Ala Thr Tyr Asp
 245 250 255
 Leu Phe Thr Lys Val Leu Gly Phe Tyr Leu Ala Glu Gln Val Leu Asp
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 Glu Asn Gly Thr Arg Val Ala Gln Phe Leu Ser Leu Ser Thr Lys Ala
 275 280 285
 His Asp Val Ala Phe Ile His His Pro Glu Lys Gly Arg Leu His His
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 Val Ser Phe His Leu Glu Thr Trp Glu Asp Leu Leu Arg Ala Ala Asp
 305 310 315 320
 Leu Ile Ser Met Thr Asp Thr Ser Ile Asp Ile Gly Pro Thr Arg His
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 Gly Leu Thr His Gly Lys Thr Ile Tyr Phe Phe Asp Pro Ser Gly Asn
 340 345 350
 Arg Asn Glu Val Phe Cys Gly Gly Asp Tyr Asn Tyr Pro Asp His Lys
 355 360 365
 Pro Val Thr Trp Thr Thr Asp Gln Leu Gly Lys Ala Phe Phe Tyr His
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 Asp Arg Ile Leu Asn Glu Arg Phe Met Thr Val Leu Thr Ile Thr Met
 385 390 395 400
 Arg Glu Leu Thr Pro Ala Ala Val Thr Gly Thr Leu Thr Thr Pro Val
 405 410 415
 Gly Arg Leu Arg Lys Leu Asn Met Gly Pro Glu Phe Leu Ser Ala Phe
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<212> PRT
<213> Salmonella typhimurium

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20 25 30

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35 40 45

Asp Phe Asp Ala Ile Arg Pro Val Phe Phe Ser Thr Ser Gln Phe Gly
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Gln Ala Ala Pro Thr Phe Gly Asp Thr Ser Thr Gly Thr Leu Gln Asp
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Ala Phe Asp Leu Asp Ala Leu Lys Ala Leu Asp
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<210> 6
<211> 306
<212> PRT
<213> Pseudomonas putida

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35 40 45

Glu Val Asp Lys Phe Ser Leu Val Leu Arg Glu Ala Asp Glu Pro Gly
50 55 60

Met Asp Phe Met Gly Phe Lys Val Val Asp Glu Asp Ala Leu Arg Gln
65 70 75 80

Leu Glu Arg Asp Leu Met Ala Tyr Gly Cys Ala Val Glu Gln Leu Pro
85 90 95

Ala Gly Glu Leu Asn Ser Cys Gly Arg Arg Val Arg Ser Arg Pro Ser
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Gly His His Phe Glu Leu Tyr Ala Asp Lys Glu Tyr Thr Gly Lys Trp
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Gly Leu Asn Asp Val Asn Pro Glu Ala Trp Pro Arg Asp Leu Lys Gly
130 135 140

Met Ala Ala Val Arg Phe Asp His Ala Leu Met Tyr Gly Asp Glu Leu
145 150 155 160

Pro Ala Thr Tyr Asp Leu Phe Thr Lys Val Leu Gly Phe Tyr Leu Ala
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Glu Gln Val Leu Asp Glu Asn Gly Thr Arg Val Ala Gln Phe Leu Ser
 180 185 190

Leu Ser Thr Lys Ala His Asp Val Ala Phe Ile His His Pro Glu Lys
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Gly Arg Leu His His Val Ser Phe His Leu Glu Thr Trp Glu Asp Leu
 210 215 220

Leu Arg Ala Ala Asp Leu Ile Ser Met Thr Asp Thr Ser Ile Asp Ile
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Gly Pro Thr Arg His Gly Leu Thr His Gly Lys Thr Ile Tyr Phe Phe
 245 250 255

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Tyr Pro Asp His Lys Pro Val Thr Trp Thr Thr Asp Gln Leu Gly Lys
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Leu Thr
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<211> 315

<212> DNA

<213> *Salmonella typhimurium*

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<212> DNA

<213> *Escherichia coli*

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